



Applicant: Mitch Randall
Express Mail Label: EV 415484014 US
Filing Date: July 2, 2003
Title: APPARATUS AND METHOD FOR PRODUCING
AMBULATORY MOTION
File No.: 23104-001

Sheet 1 of 27

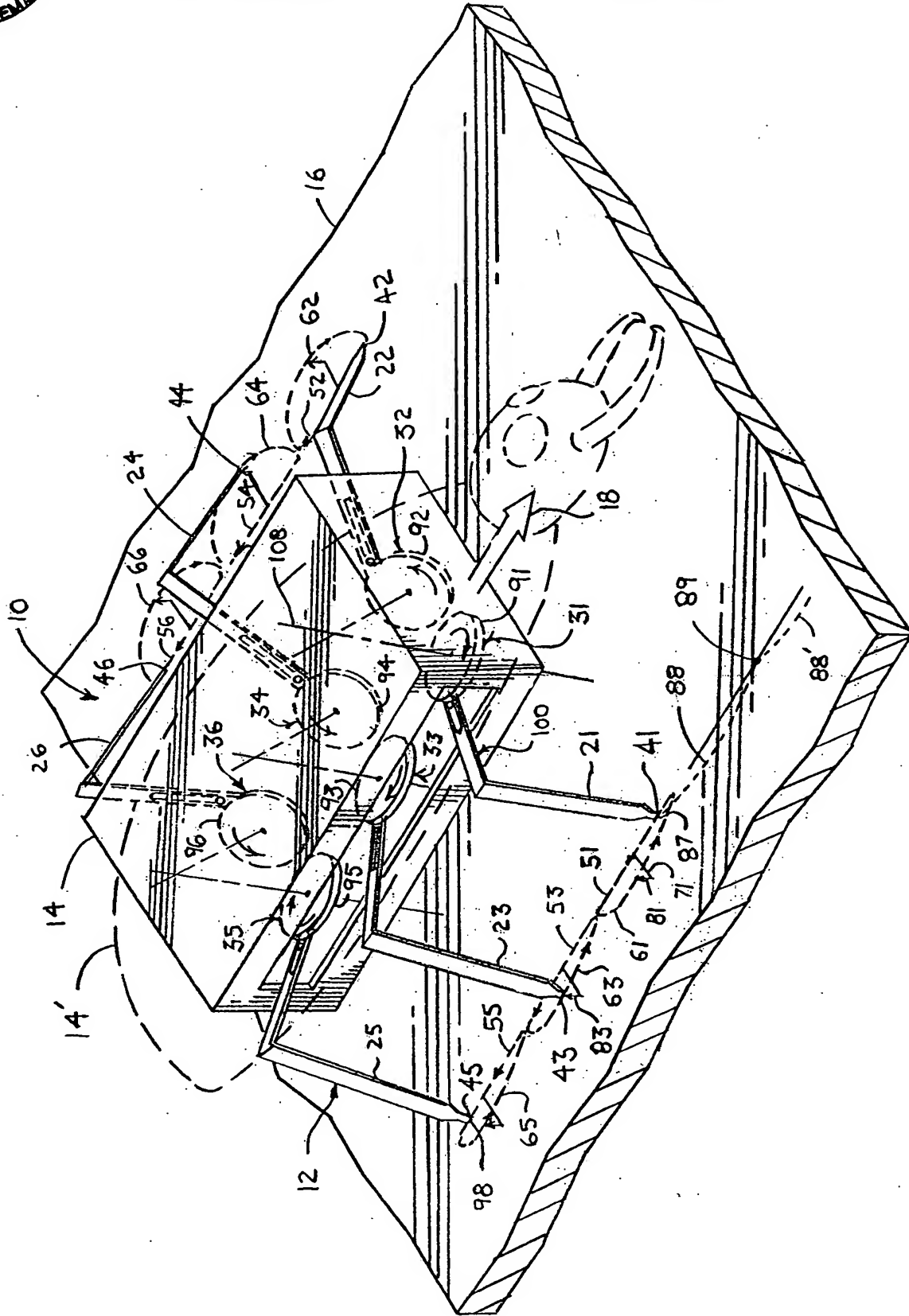


FIG. 1

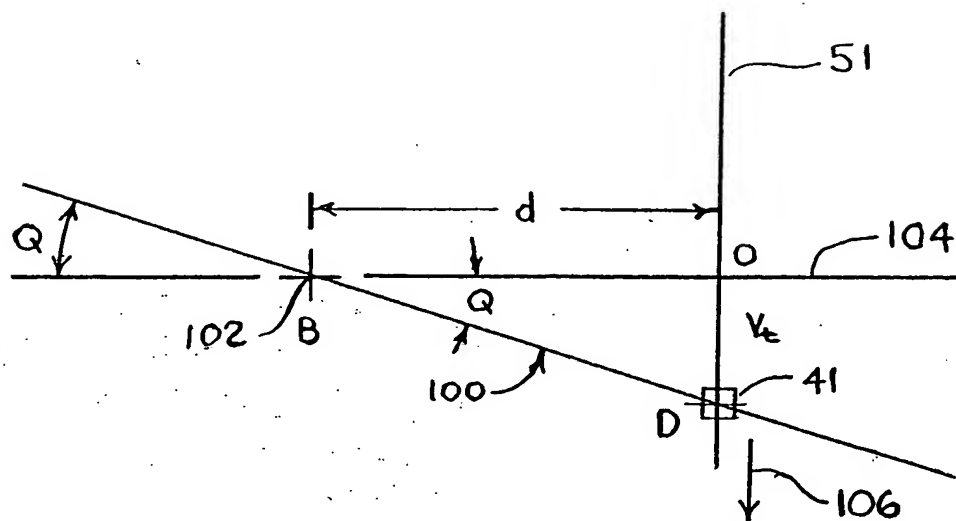


FIG. 2

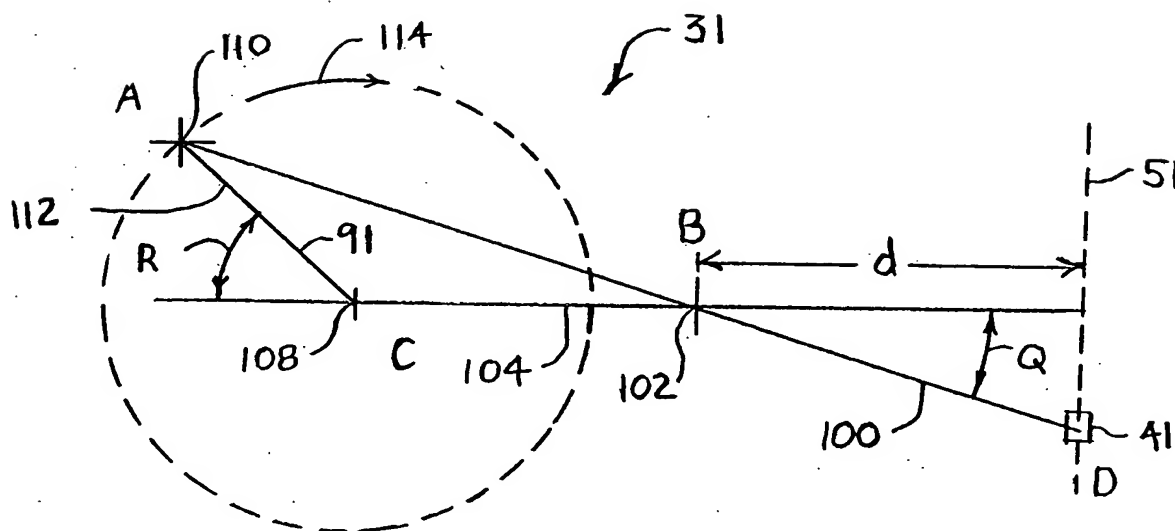


FIG. 3



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**Approximation of $\text{ARCTAN}(VR/\omega d)$
required for constant foot speed**

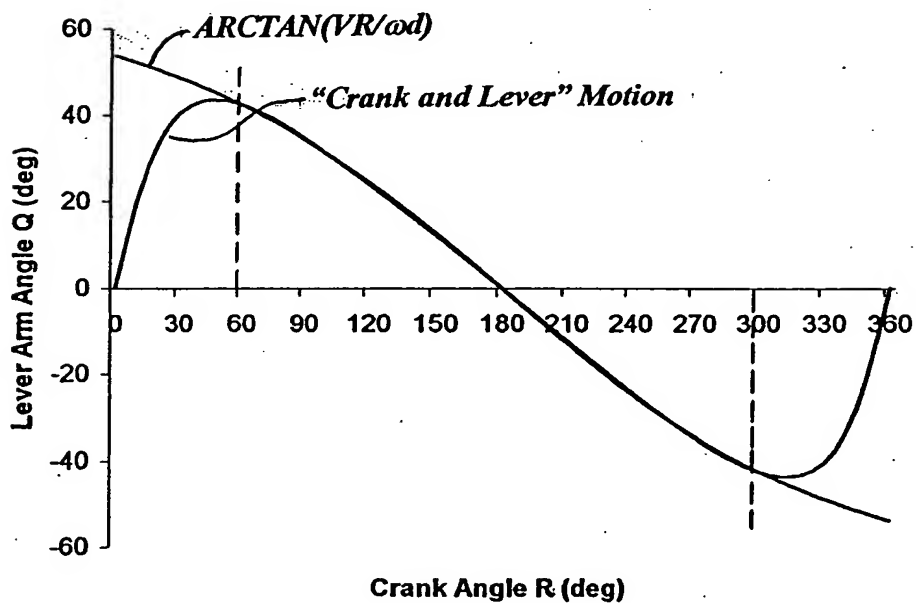


FIG. 4



**Normalized Foot Speed resulting from
ATAN(VR/wd) approximation**

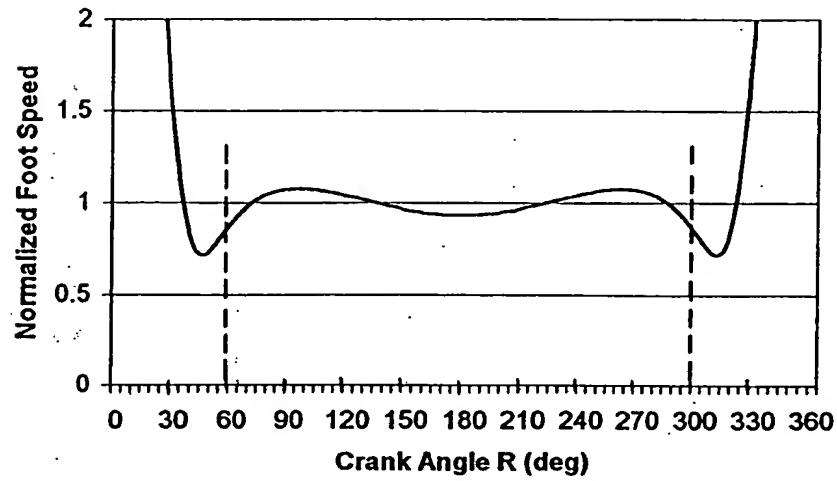


FIG. 5

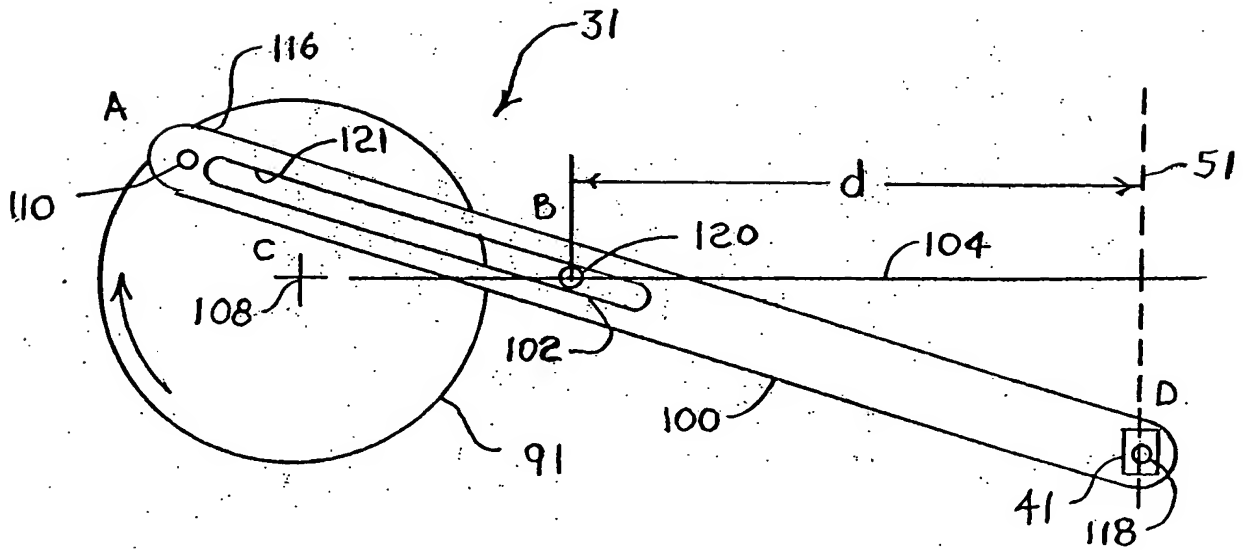


FIG. 6

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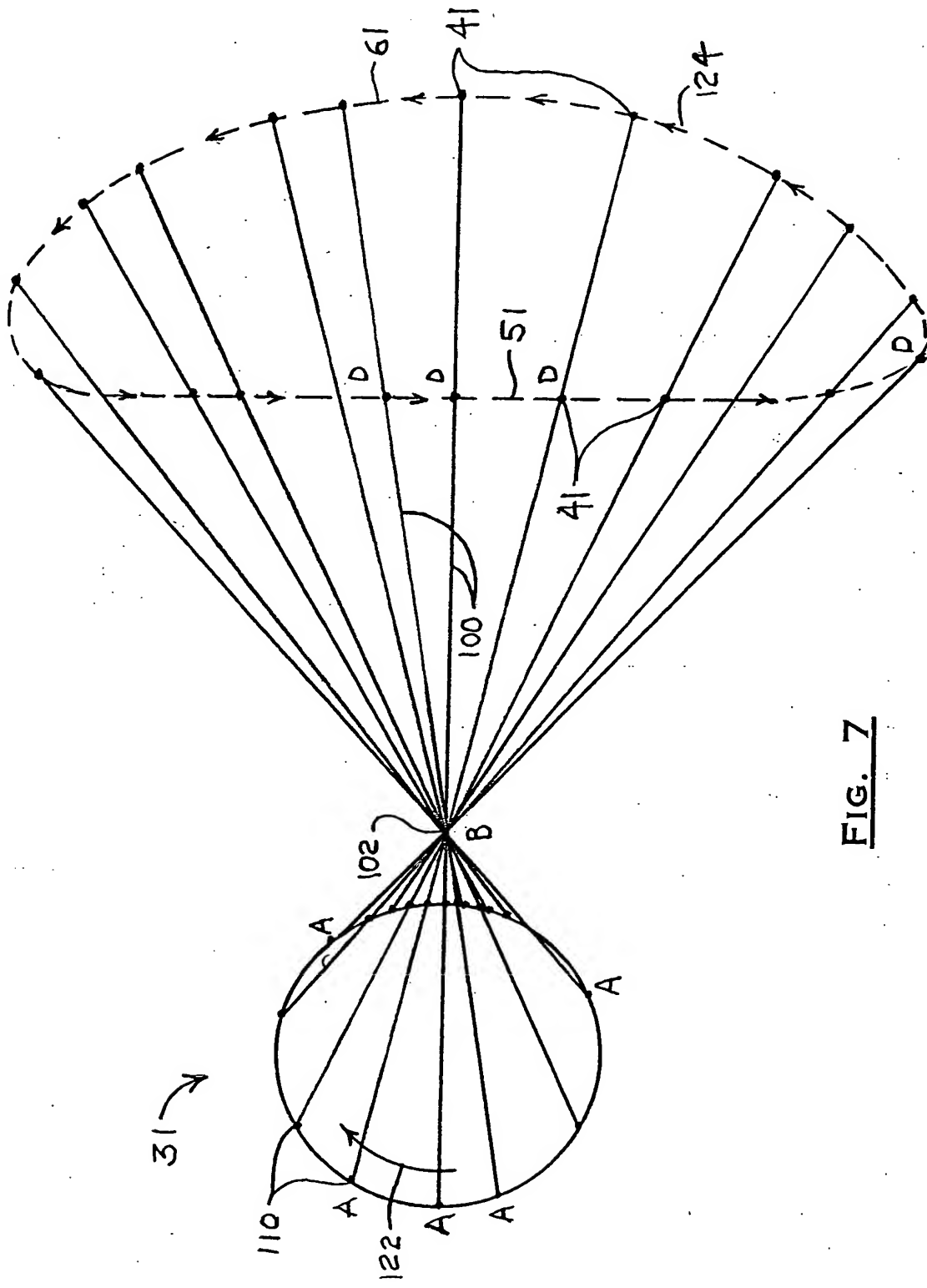


FIG. 7

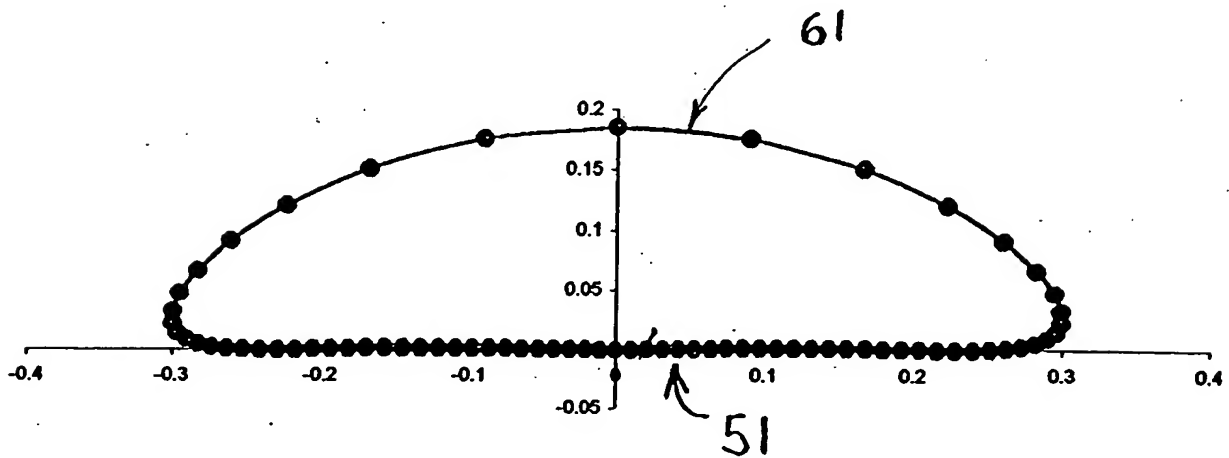


FIG. 8

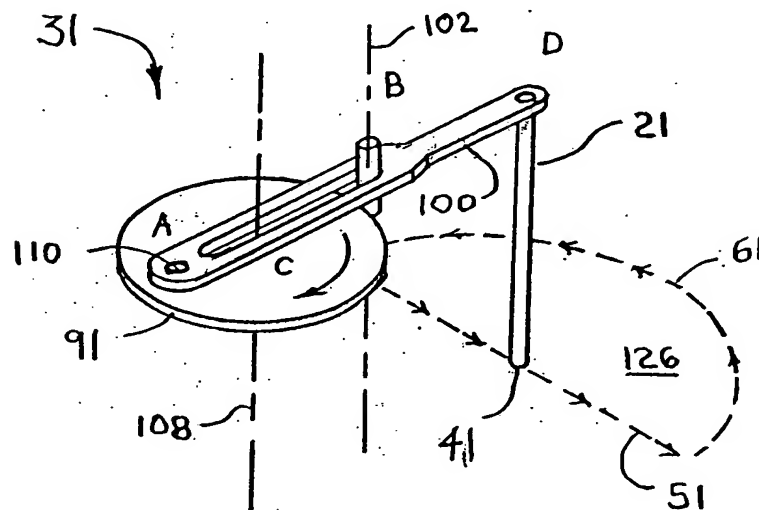
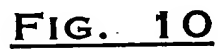
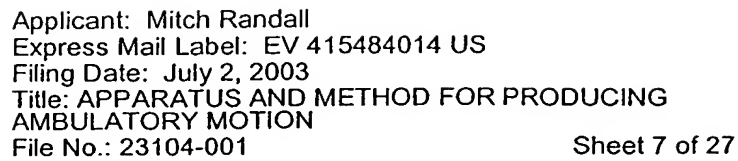


FIG. 9



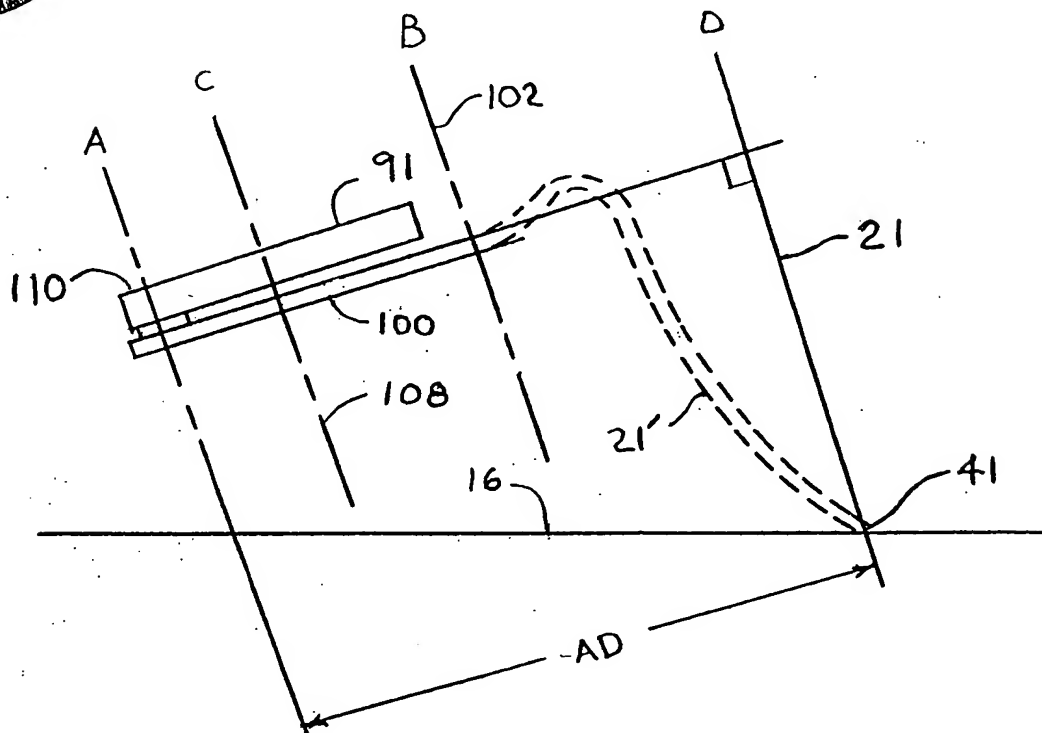


FIG. 12

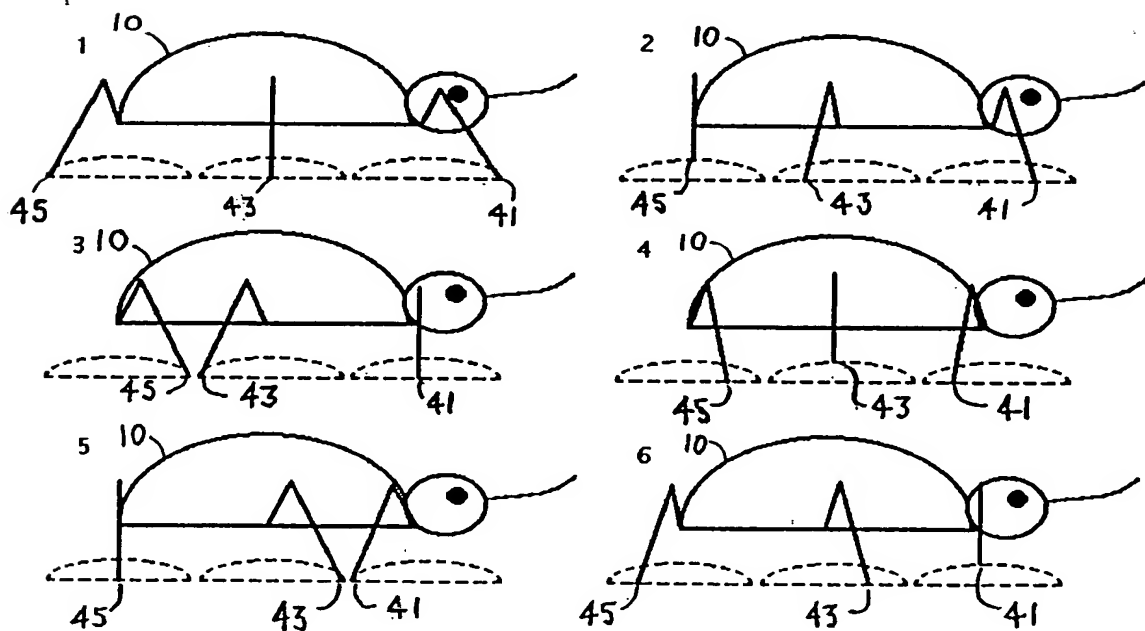


FIG. 13

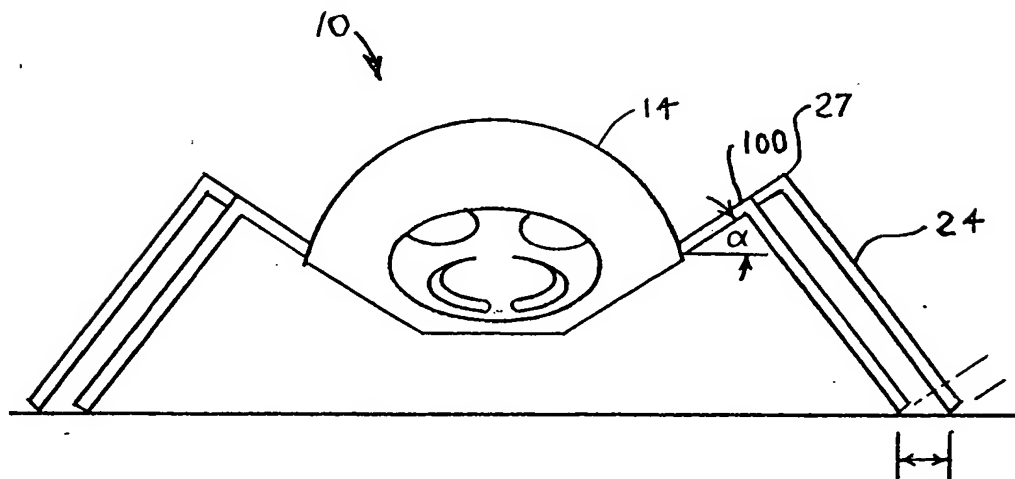


FIG. 14

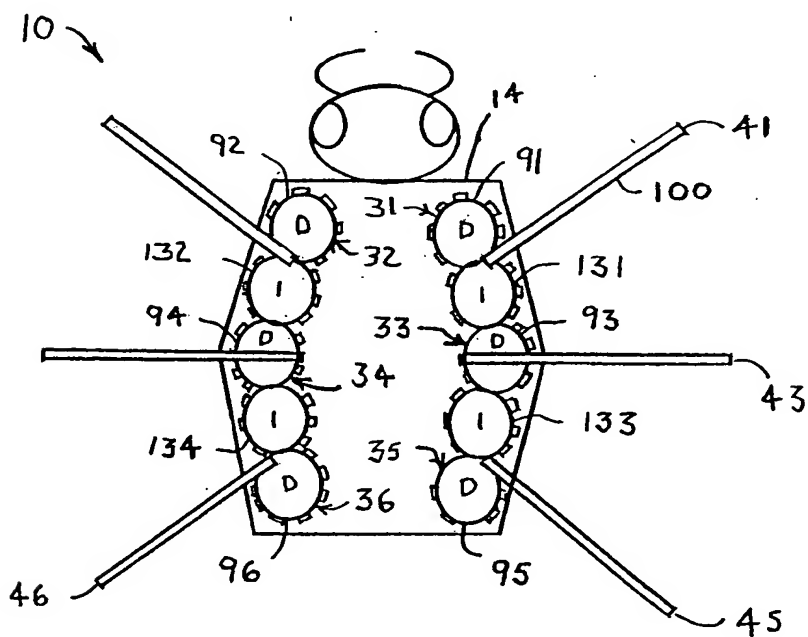


FIG. 15

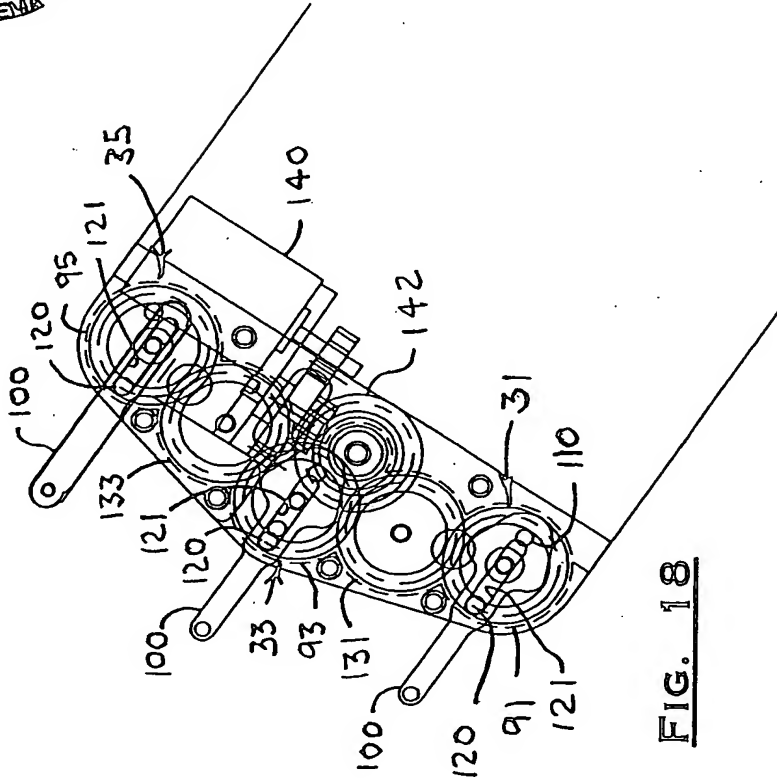


FIG. 18

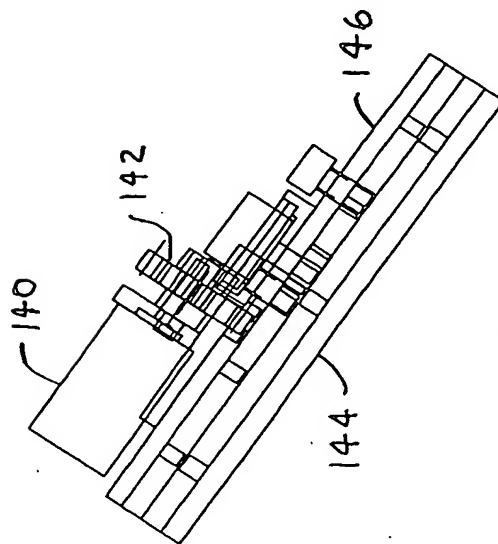


FIG. 17

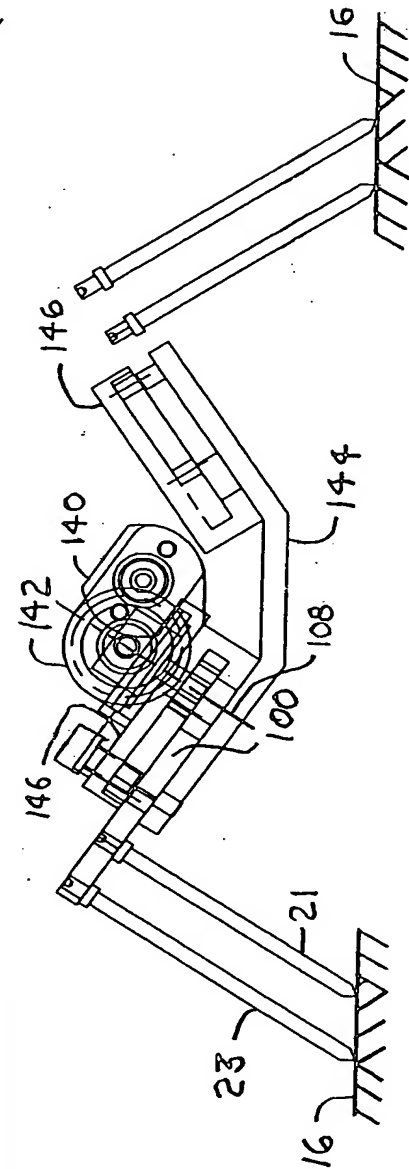


FIG. 16

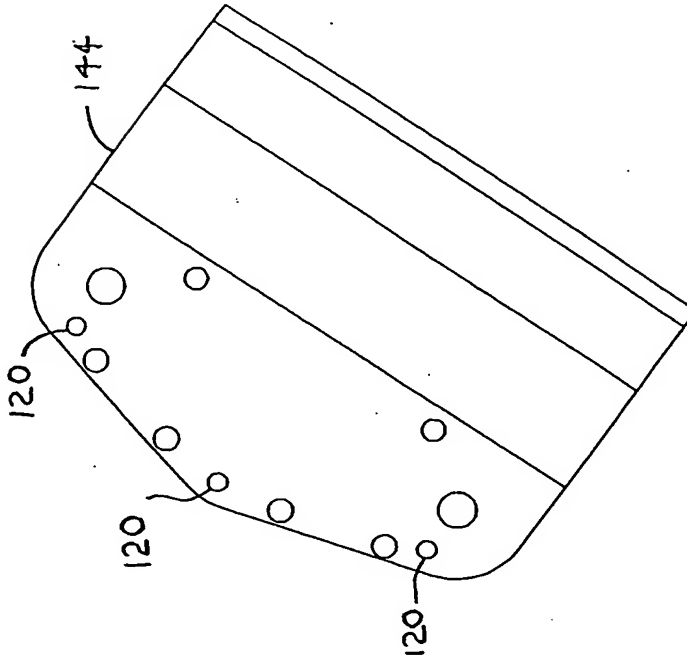


FIG. 21

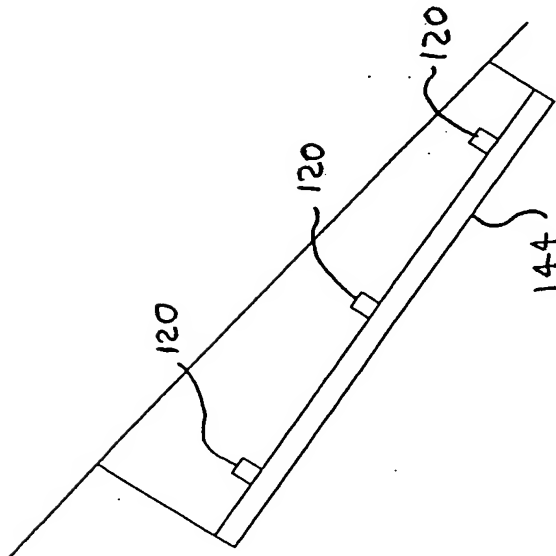


FIG. 20

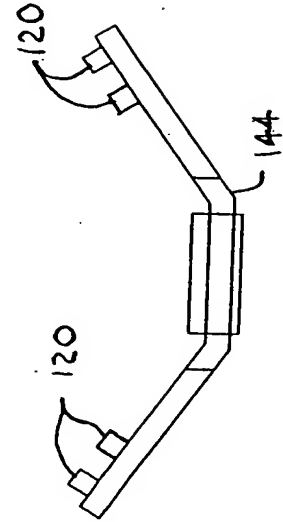


FIG. 19

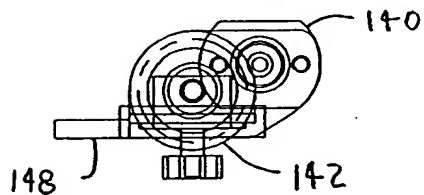
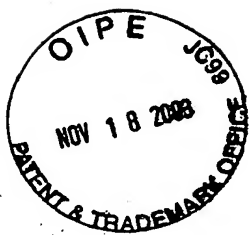


FIG. 22

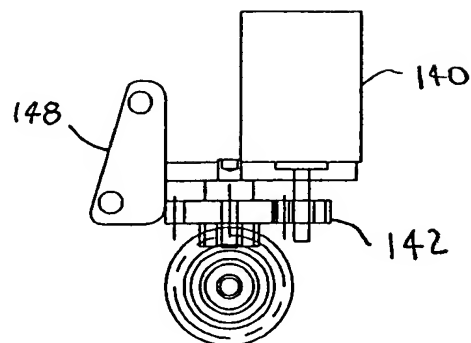


FIG. 23

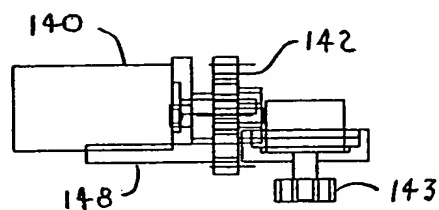


FIG. 24

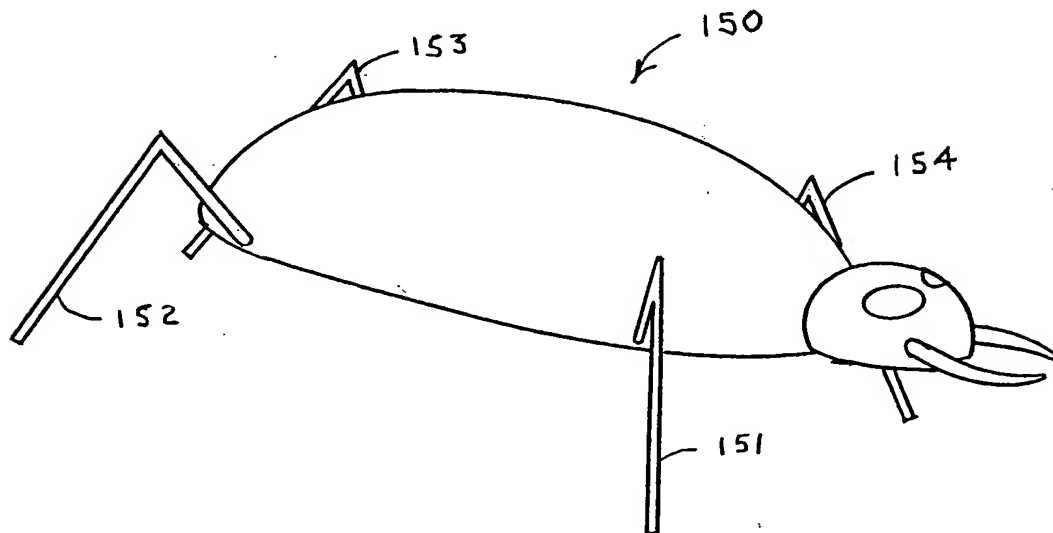


FIG. 27



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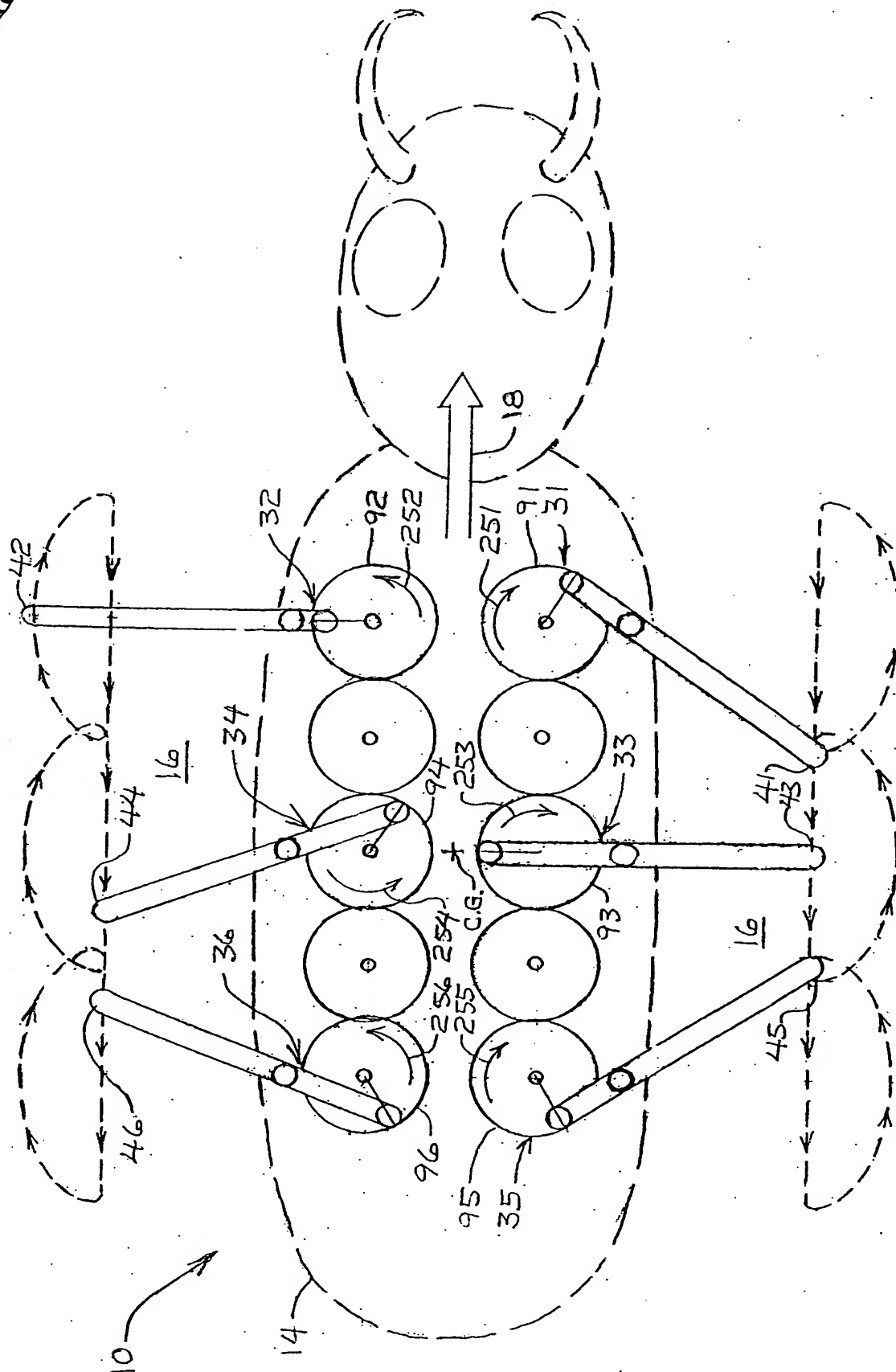


FIG. 25

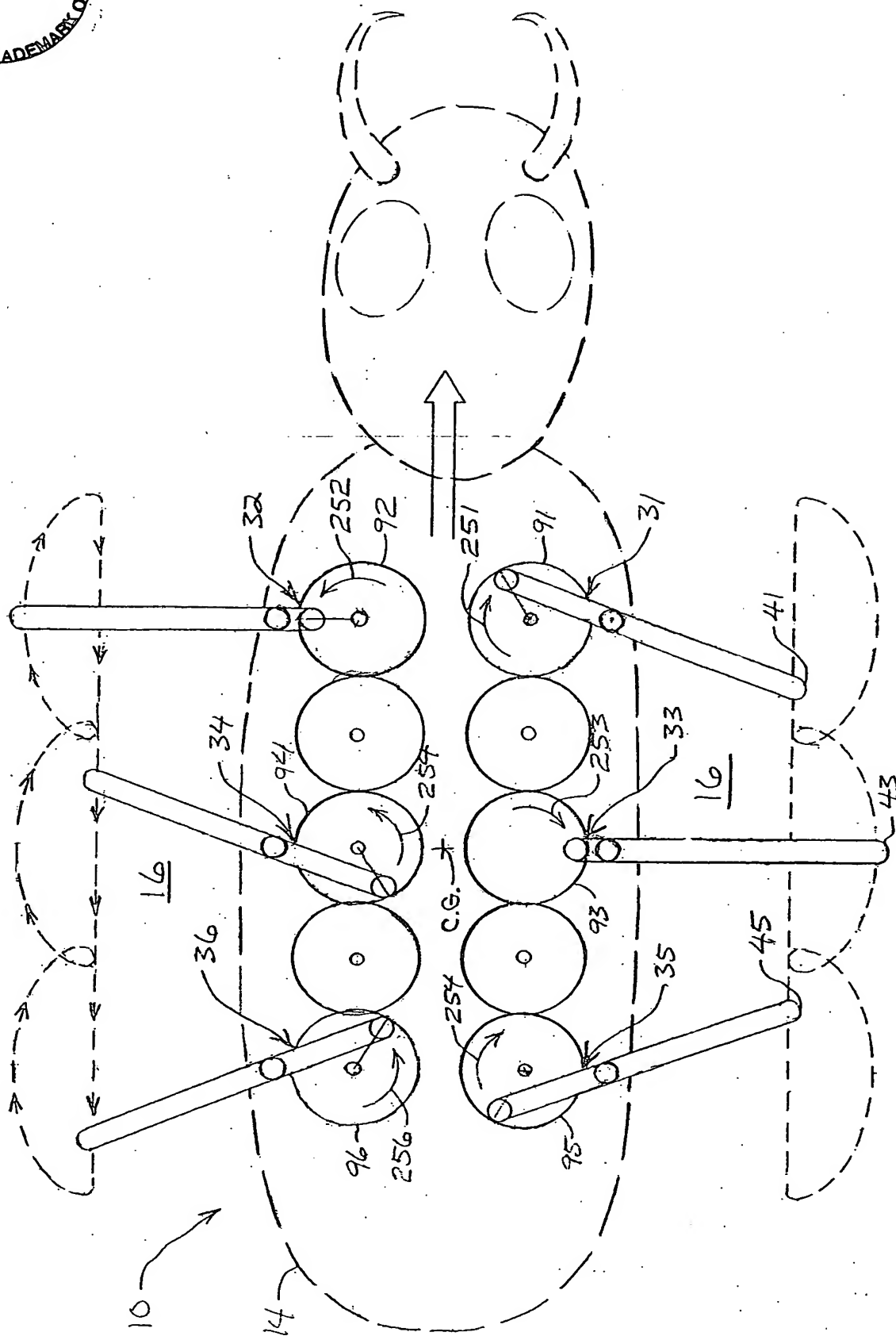


FIG. 26

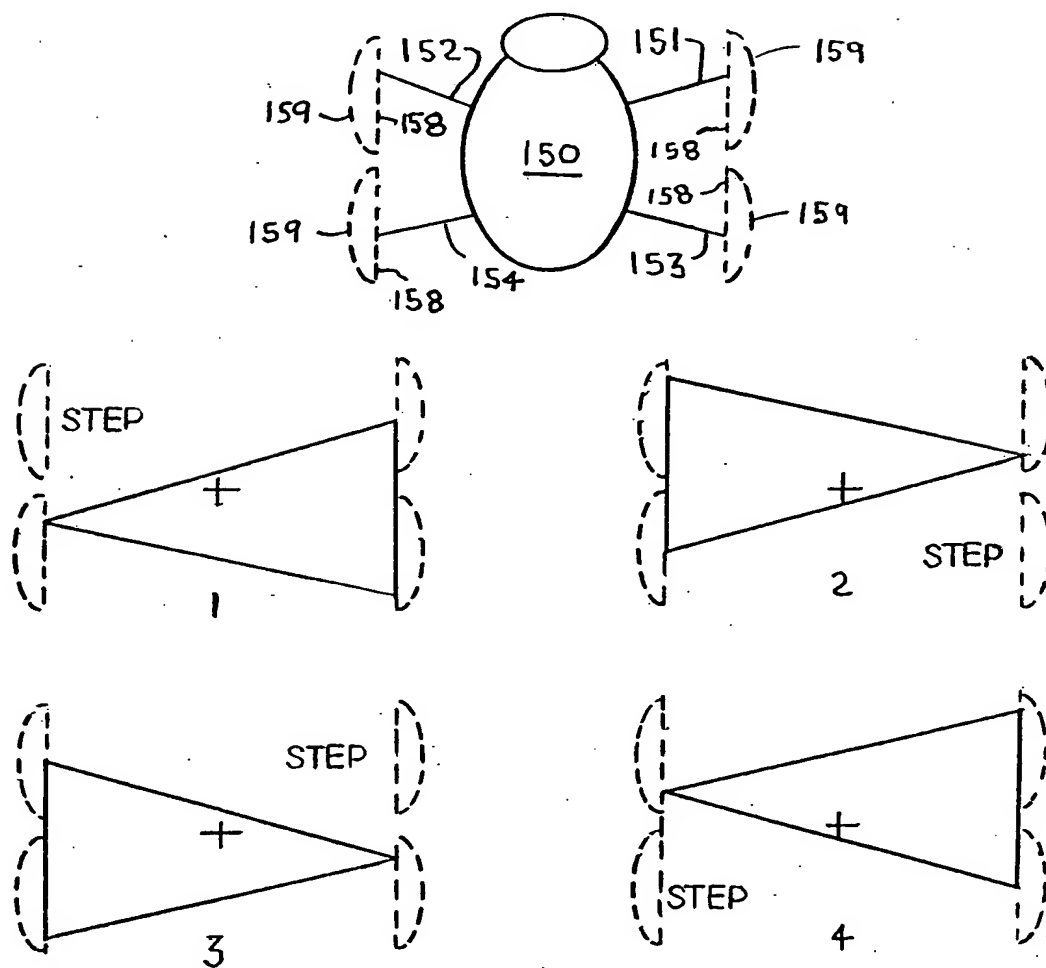


FIG. 28

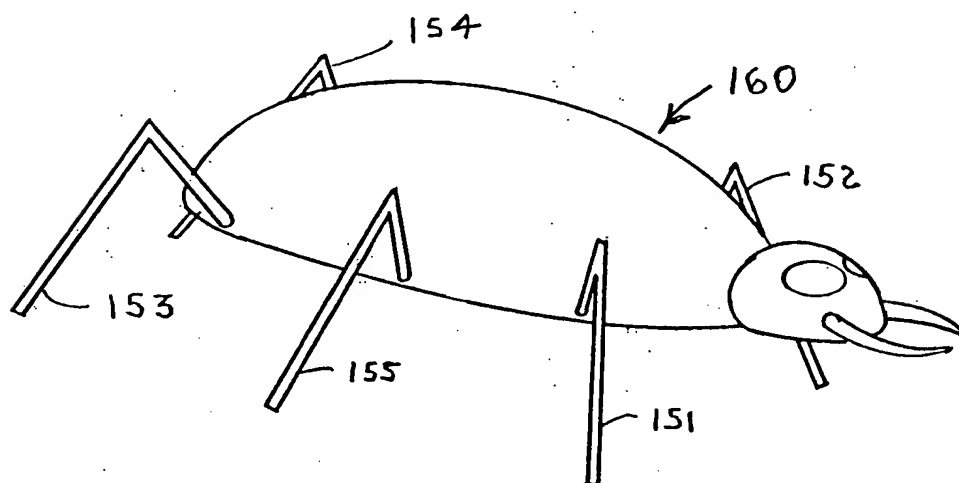


FIG. 29

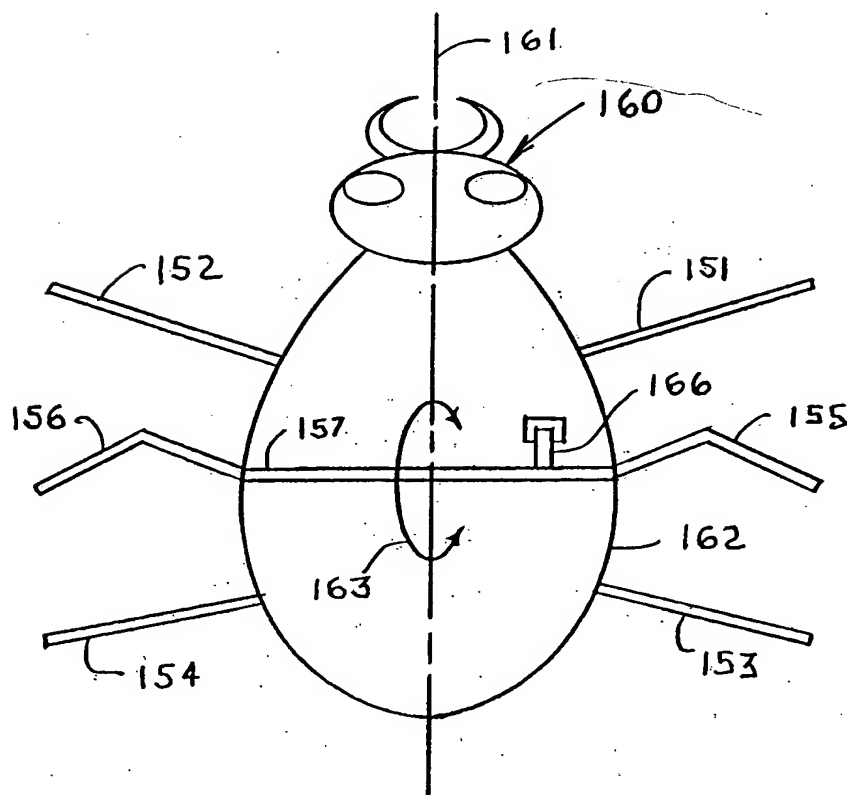


FIG. 30

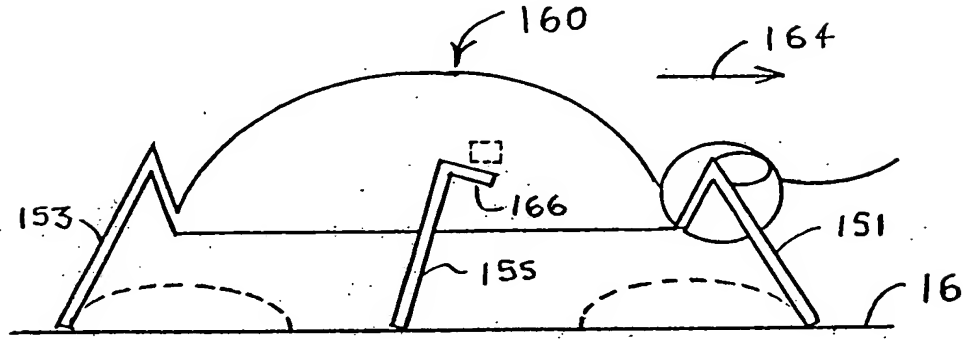


FIG. 31

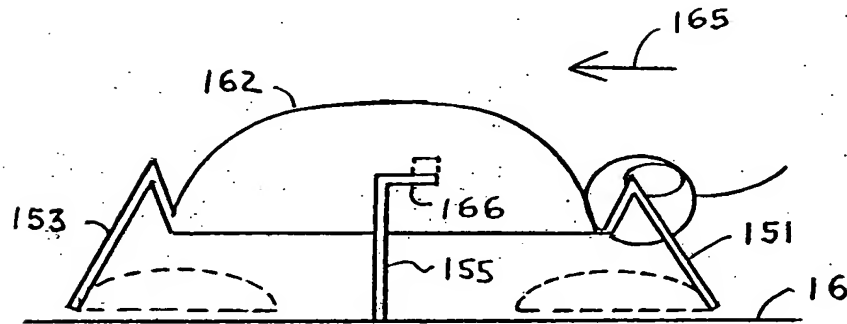


FIG. 32

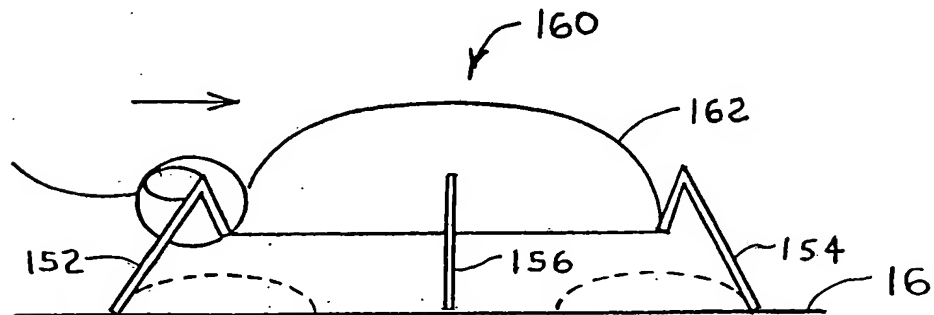


FIG. 33

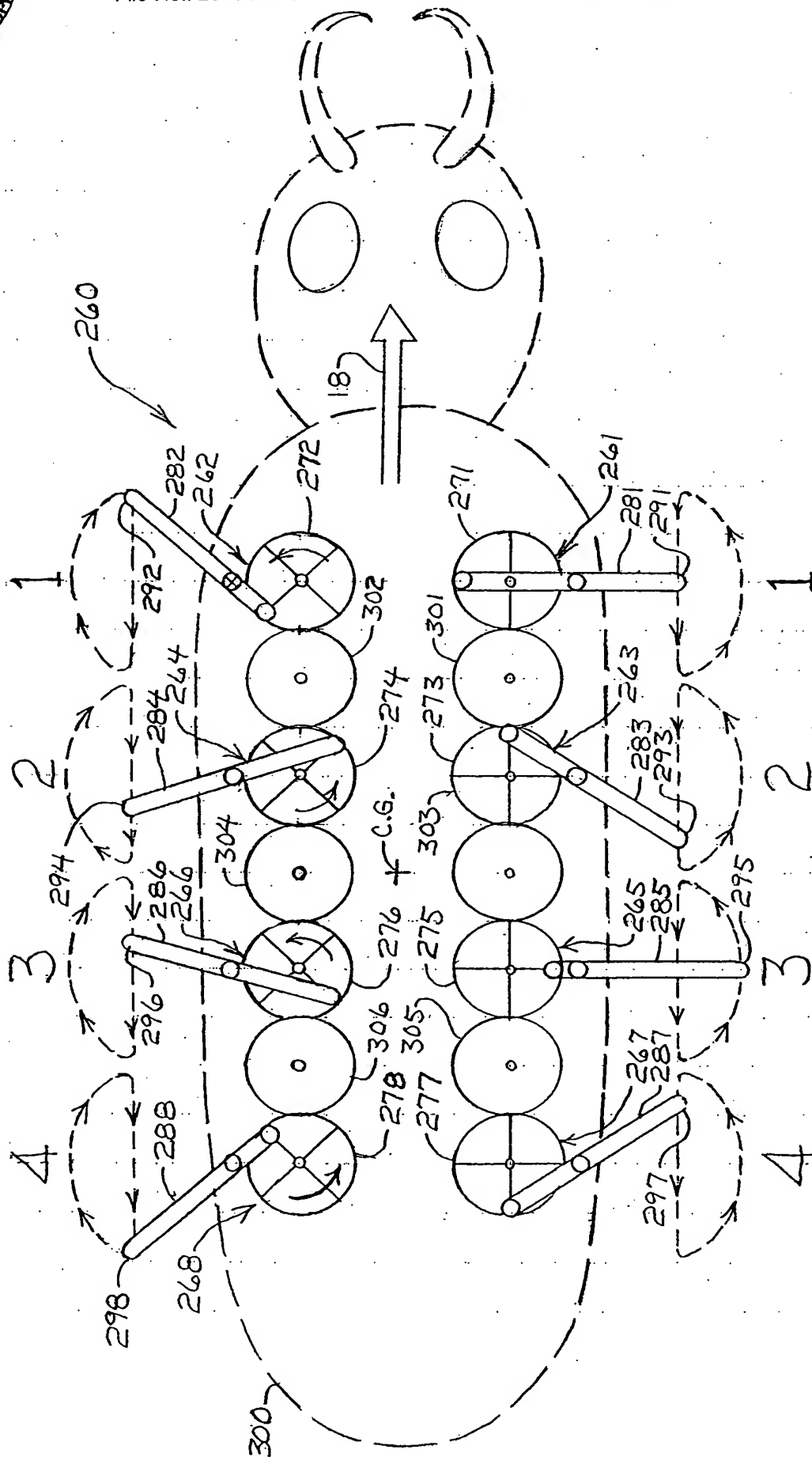
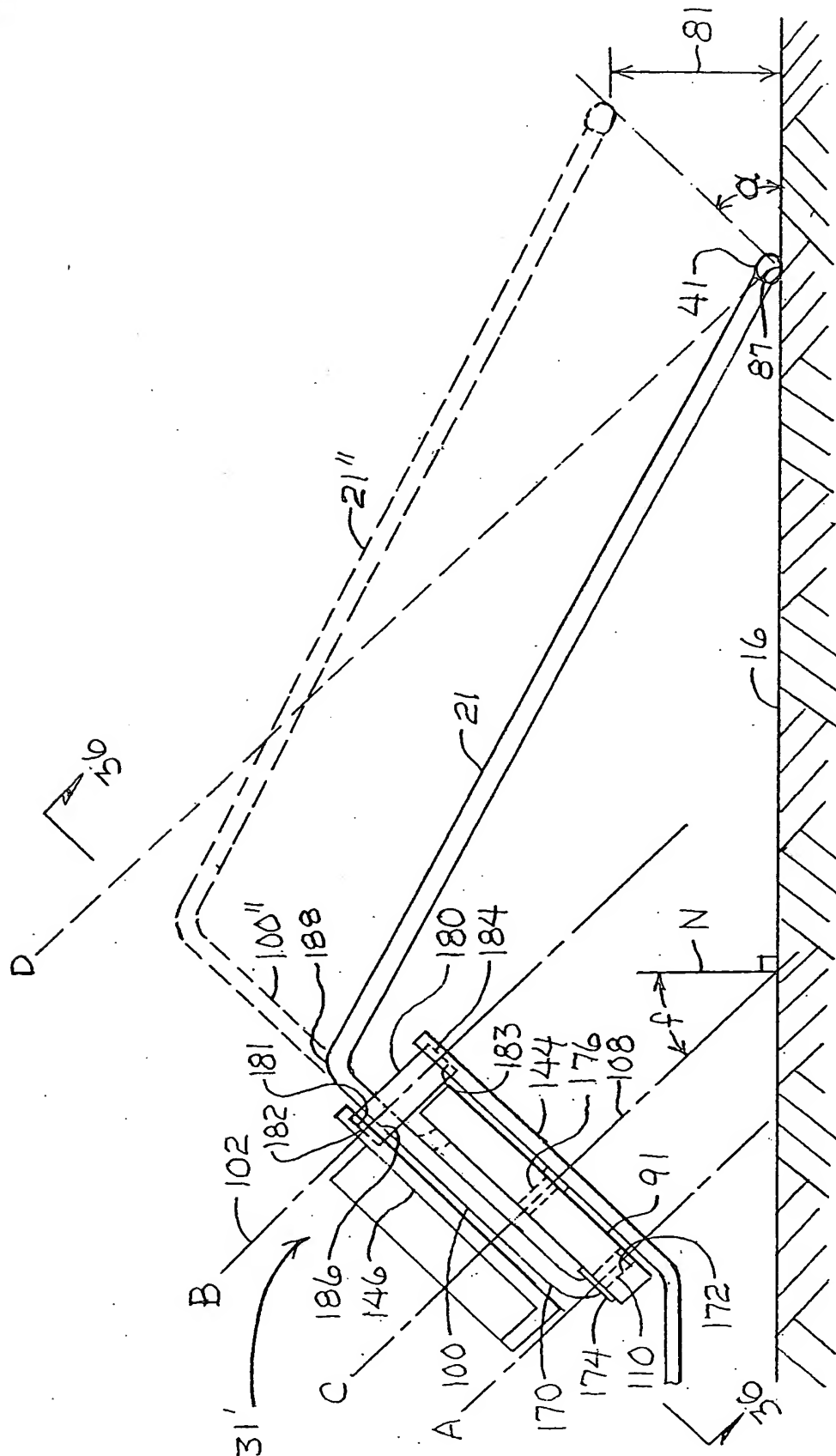


FIG. 34



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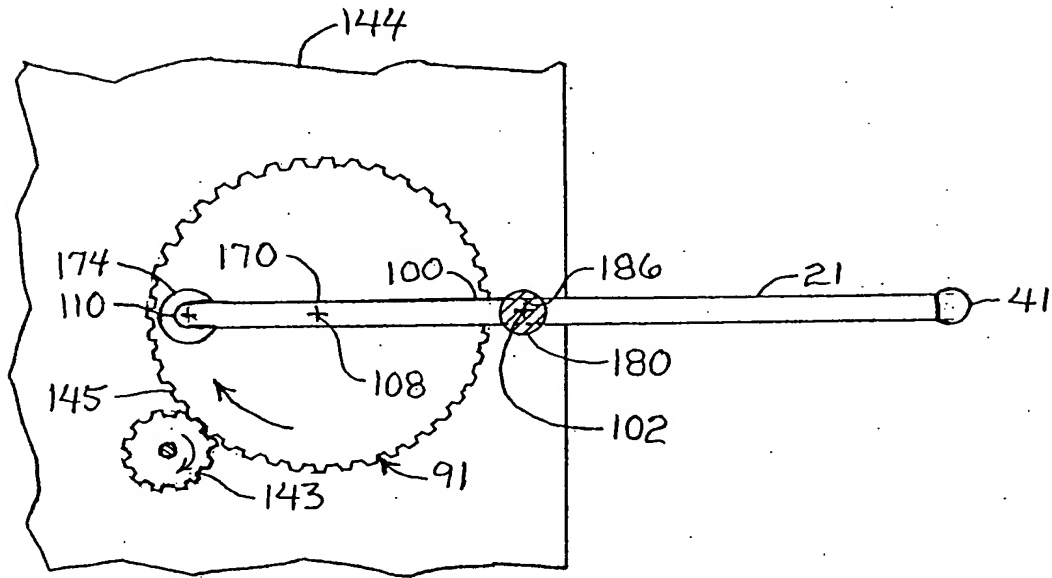


FIG. 36

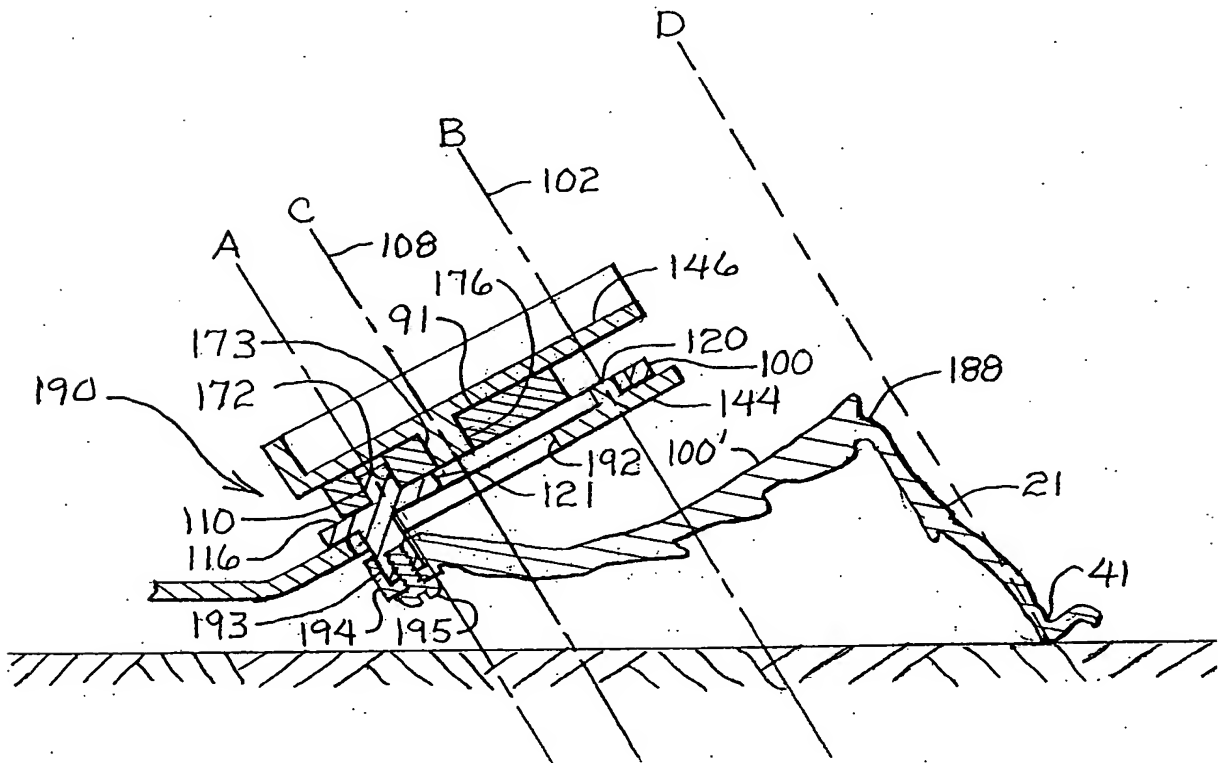


FIG. 37

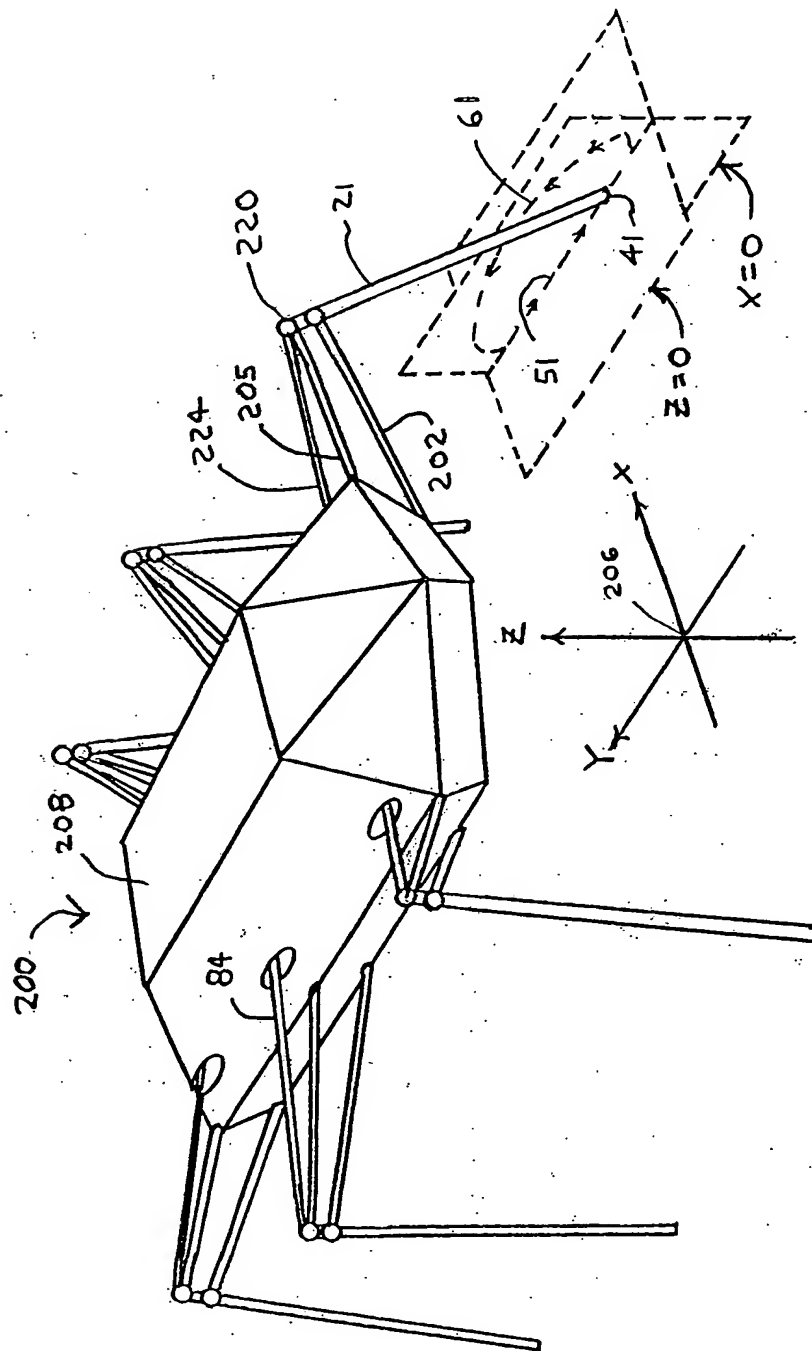


FIG. 38

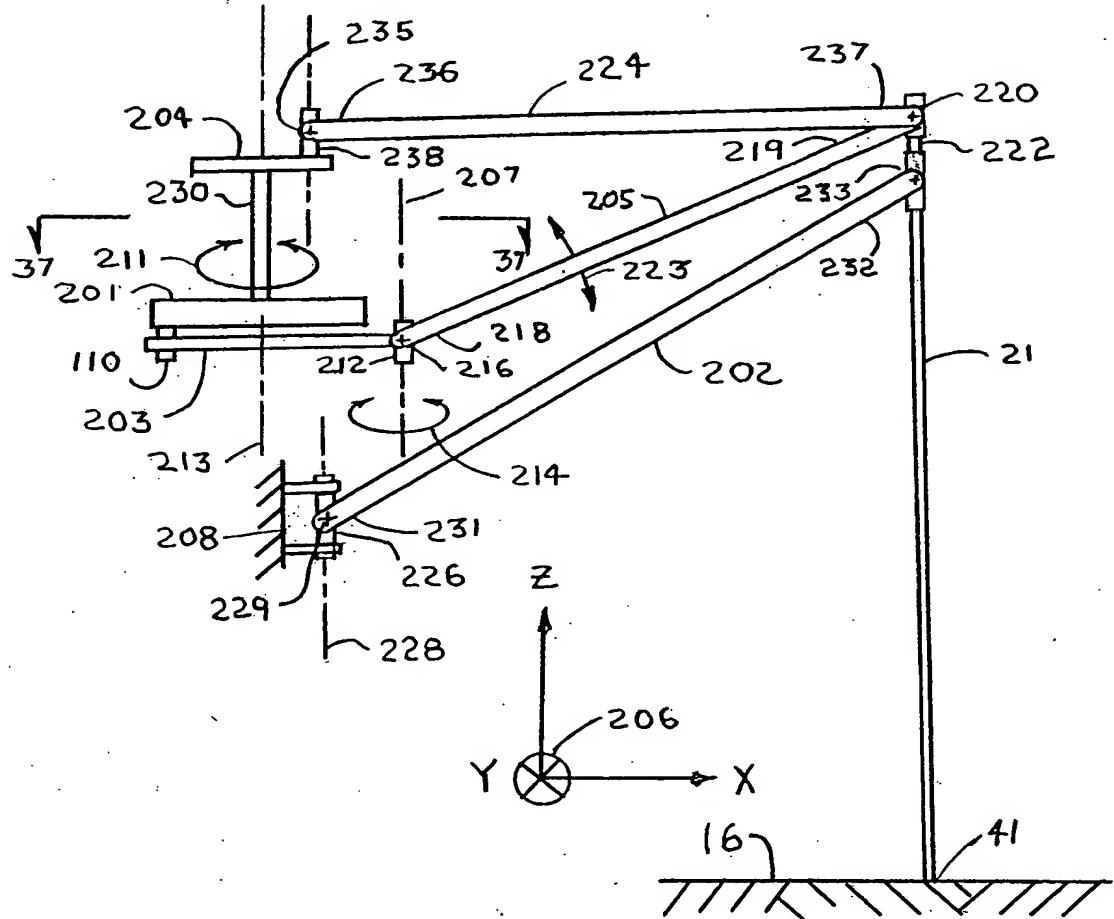


FIG. 39

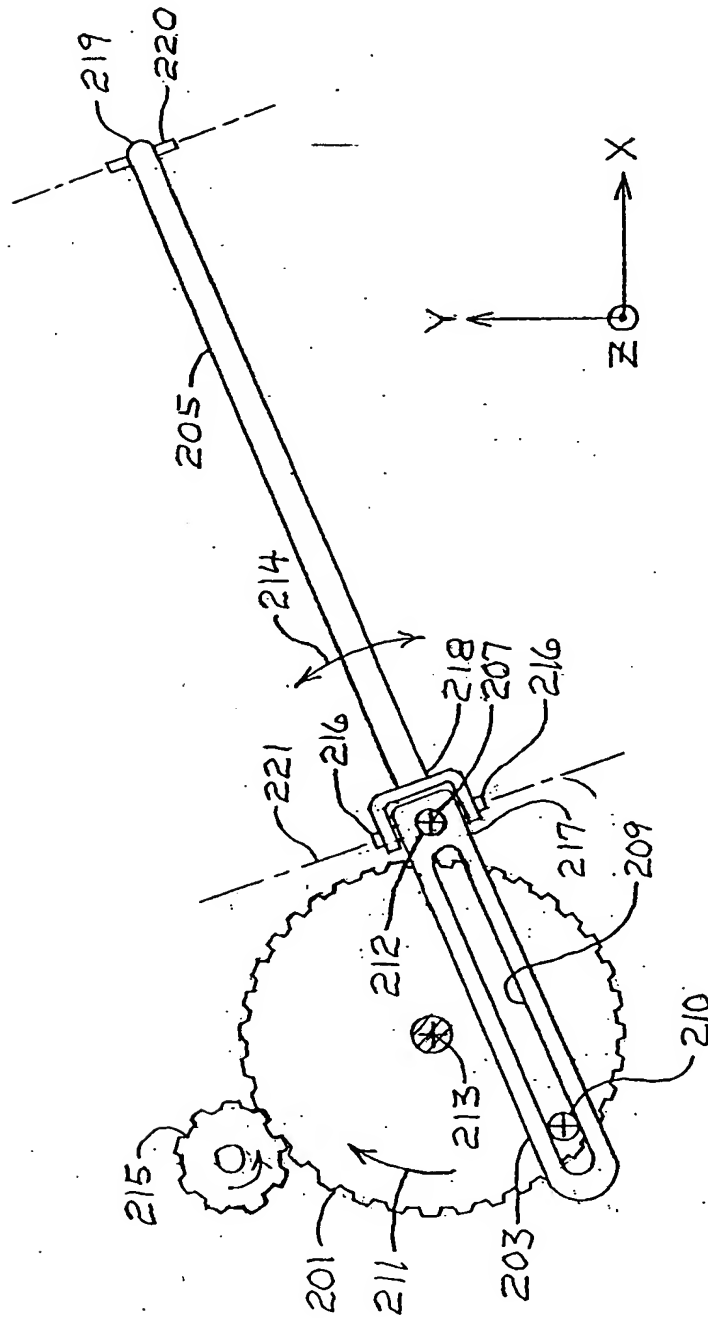
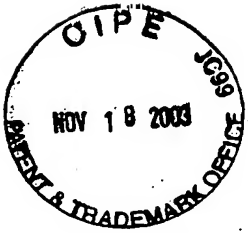
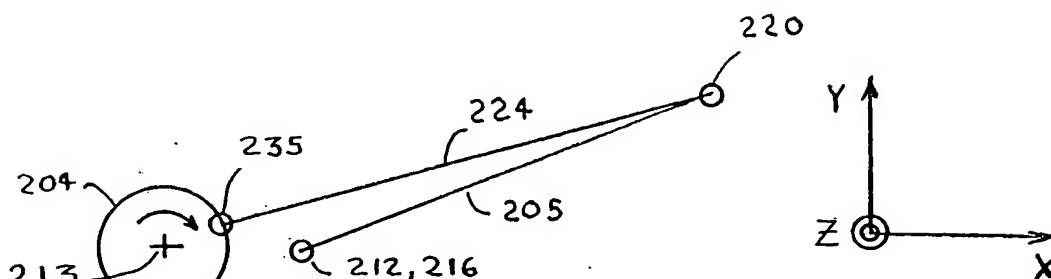
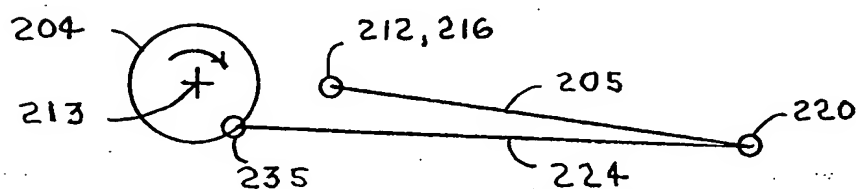


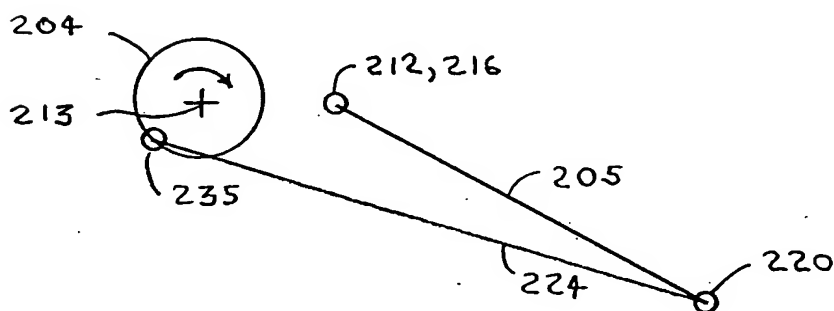
FIG. 40



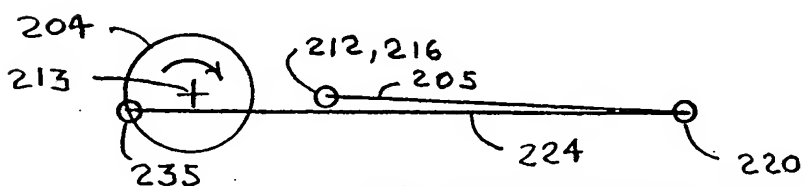
(1) Beginning of forward stroke



(2) Near end of forward stroke



(3) Lifting for step stroke



(4) Near maximum step height

FIG. 41

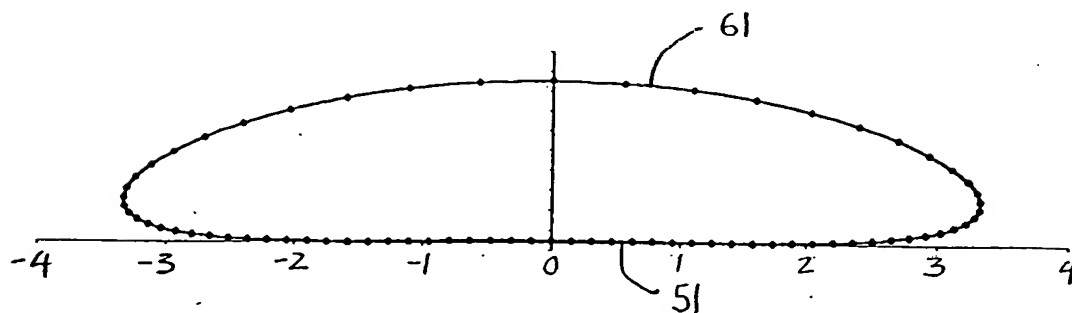


FIG. 42

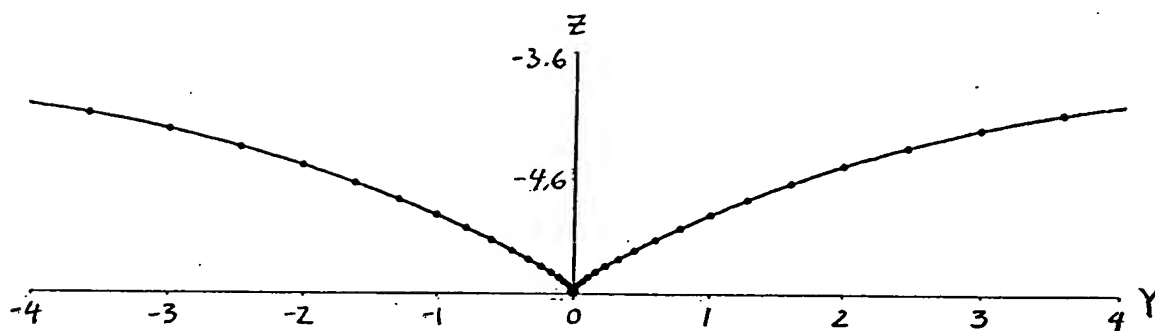
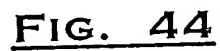


FIG. 43



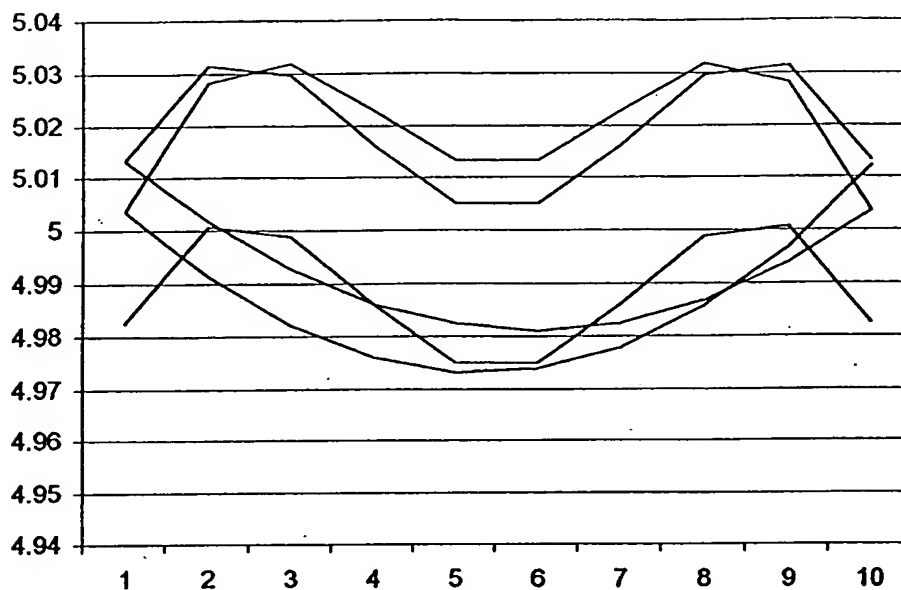


FIG. 45

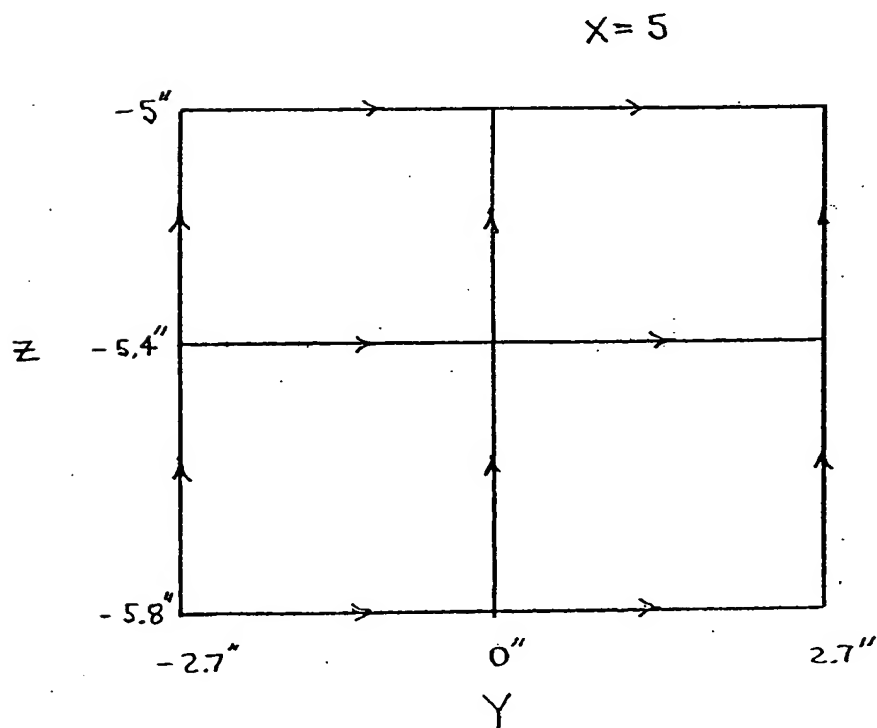


FIG. 46